CERTIFICATE

The attachment of this certificate is a copy of the following patent application submitted to this office:

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Application No.: 03 2 47092.4

Type of invention: Utility Model

Title of the invention: A wristwatch

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Director of the State Intellectual Property Office

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July 16, 2003

A Wristwatch

Technical Field

This utility model relates to a wristwatch, and in particular, to a wristwatch with a flash memory circuit board assembly installed inside.

Background of the Utility Model

In recent years, the emergence of the products of the USB flash memory disk provides convenience for people for data storage and transmission. Since a control IC (CPU) and a Flash memory are installed inside the USB flash memory disk for electronic data storage and transmission, this kind of product can realize quick data writing and saving, can store data safely and reliably, and the lifetime of the product is rather long. However, in order to realize data storage and transmission, people have to carry a flash memory disk and a long connection cable additionally, which are inconvenient for carrying, using and storing. A wristwatch, as a timing instrument, is becoming increasingly popular. Whereas, up to now, no such wristwatch is present which can be used as a timing instrument as well as a flash memory disk, and have good water-resistant performance.

Summary of the Utility Model

The main object of the present utility model is to provide a wristwatch which can be used as a timing instrument as well as a flash memory disk, and have good water-resistant performance.

The above object of the present utility model is achieved by the following technical scheme. A wristwatch according to the present utility model comprises a timing indicating component, a transparent lens, a watch case, and a case back. The transparent lens, the watch case and the case back constitute the outer shell of the wristwatch, and opening holes are made thereon. The wristwatch further includes a flash memory circuit board assembly and a USB connector assembly connecting thereto. Said flash memory circuit board assembly is installed inside the outer shell of the wristwatch, its circuit is similar with the prior art flash memory disk, which includes a control IC and a flash memory. The USB connector assembly consists of a water-resistant pusher, a USB cable and a USB connecter, wherein one end of the USB cable is connected to the water-resistant pusher, the other end is connected to the USB connector. The water-resistant pusher is installed inside the opening holes of the watch shell, and is connected with the circuit connecting point of the flash memory circuit board assembly. The USB connector is located outside the opening hole of the watch shell.

The advantages of the present utility model are as follows: since a flash memory circuit board assembly is integrated in the wristwatch, the wristwatch can be used as a flash memory disk in addition to indicating time. Therefore, people can realize quick data transmission and storage without carrying a portable hard disk, a soft disk or a traditional flash memory additionally. Since one end of the USB cable is installed inside the watch shell via the water-resistant pusher, the wristwatch of the present utility model has an excellent water-resistant performance, which ensures the water proof of the inside parts, such as the flash memory circuit board assembly and the time indicating components, to prevent data from being damaged and lost. Furthermore, if the USB cable is long enough, the watch band can be fixed with a cover to protect the USB connector. Since the USB connector assembly is adhered to the wristwatch with its two ends fixed, the user can realize data flash memory anytime and anywhere without carrying

a connection cable.

Brief Description of the Drawings

Fig. 1 is the sectional schematic view of the wristwatch according to embodiment I of the present utility model;

Fig. 2 is the sectional schematic view of the wristwatch according to embodiment I of the present utility model without the watch band and the USB connector assembly;

Fig. 3-1 is the lateral schematic view of the wristwatch according to embodiment I of the present utility model without the watch band and the USB connector assembly;

Fig. 3-2 is the schematic view of the USB connector assembly of the wristwatch according to embodiment I of the present utility model;

Fig. 3-3 is the enlarged view of part I of Fig. 3-2;

Fig. 3-4 is the schematic view of the water-resistant pusher of the wristwatch according to embodiment I of the present utility model;

Fig. 3-5 is the lateral schematic view of the wristwatch according to embodiment I of the present utility model;

Fig. 4-1 is the sectional schematic view of the wristwatch according to embodiment II of the present utility model without USB connector assembly;

Fig. 4-2 is the sectional schematic view of the wristwatch according to embodiment II of the present utility model.

Detailed Description of the Preferred Embodiments

The present utility model will now be described in details by way of examples with reference to the accompanying drawings.

Embodiment I

As shown in Fig. 1, the wristwatch according to this embodiment is an analog watch, consists of a time movement 1, hands 2, a transparent lens 3, a watch case 4, a case back 5 and a watch band 6. The time movement 1 and the hands 2 constitute the time indicating component of the wristwatch, the transparent lens 3, the watch case 4 and the case back 5 constitute the shell of the wristwatch. The wristwatch further includes a flash memory circuit board assembly 7 and a USB connector assembly, said USB connector assembly includes a water-resistant pusher 8, a USB connection cable 9 and a USB connector 10, one end of the USB connection cable 9 connects with the water-resistant pusher 8, the other end of it connects with the USB connector 10. The water-resistant pusher 8 is installed in the opening hole of the watch case, and extends inside the watch case of the wristwatch, then further connect with the flash memory circuit board assembly 7. The aim to adopt the water-resistant pusher 8 in the wristwatch is to achieve excellent water proof performance, as the water-resistant pusher is used as the functional key in the existing wristwatch of high water proof performance. The time movement 1, the hands 2 and the flash memory circuit board assembly 7 are installed inside the watch case of the wristwatch, the flash memory circuit board assembly 7 is located under the time movement 1, the assembly 7 includes a central processing unit (CPU) 71, a flash memory 72, an indicator light 74 and a spring bar 73, wherein the spring bar 73 is the connecting point of the circuit. The operational principle of the flash memory circuit board assembly 7 is the same as that of the prior flash memory. The indicator light 74 provides indication to users during transmitting and storing operation, and

accordingly the components over the indicator 74 are also transparent. Said water-resistant pusher 8 are equipped with a water proof gasket 81 and a spring bar 82, said water proof gasket 81 fills the gap between the water-resistant pusher 8 and the opening hole of the watch case, said spring bar 82 connects with the spring bar 73 of the flash memory circuit board assembly 7. The watch band 6 is wrapped with a cover 11 which has a cavity 110 for receiving the USB connector 10. Moreover, the cover 11 can protect the USB connector from dust and water. The cover 11 can also function as securing means for the USB connector assembly. The USB connector is usually kept in the cavity 110 of said cover 11, and when loading, transmitting or storing data, the cover 11 is removed, and the USB connector 10 is plugged to the corresponding USB port of a computer. Since the USB connector 10 of the wristwatch can be directly plugged into the USB port of the computer, the user can realize data flash memory anytime and anywhere without a long cable additionally. Furthermore, a fixing block 12 is provided at the engagement position between the watch case and the watch band to cover and fix the USB connection cable 9.

Fig. 2 shows the sectional schematic view of this embodiment without the watch band and the USB connector assembly. In the watch case, an opening hole 41 connected with an outwards groove 42 is provided, said opening hole 41 is used to install the water-resistant pusher 8.

As shown in Fig. 3-1, the flash memory circuit board assembly 7 has a spring bar 73 used as the circuit connecting point. The watch case 4 has four opening holes 41 connected with an outwards groove 42, on each of the two sides of the groove 42, a fixing hole 43 is provided for inserting the fixing bars 14.

As shown in Fig. 3-2, the USB connector assembly includes a set of water-resistant pushers 8, a USB connection cable 9 and a USB connector 10.

As shown in Fig. 3-3, as the USB connection cable 9 is a four-core cable with four ends, the water-resistant pusher 8 has four ends. Each end of the water-resistant pusher 8 connects with the end 90 of one core of the USB connection cable 9, and the on each end of the water-resistant pusher 8 is provided with a water proof gasket 81 and a spring bar 82. The connection part between the water-resistant pusher 8 and the USB connection cable 9 is enveloped by a outer covering 13, so as to seal and protect the water-resistant pushers 8 and the ends 90 of the USB connection cable 9 connecting thereto. The outer covering 13 has a groove 130 on each side so as to form a sealing structure when inserting the fixing bars 14 into the fixing holes 43 of the watch case. When the water-resistant pusher 8 is inserted into the opening hole 41, the water proof gasket 81 fills the gap between the water-resistant pusher 8 and the opening hole 41, which ensures an airtight structure and prevents water or moisture from entering into the watch case.

As shown in Fig. 3-3 and Fig. 3-4, each end of the water-resistant pusher 8 has a hole 80 to be connected with the corresponding end 90 of the connection cable 9, said end 90 of the USB connection cable 9 is inserted into said hole 80 and secured with conductive material such as soldering tin, so as to ensure the electricity conductivity of the connection between the end 90 and the water-resistant pusher 8.

As shown in Fig. 3-5, each spring bar 82 of the water-resistant pusher 8 is connected with the spring bar 73 of the flash memory circuit board assembly 7, thereby the USB connector assembly and the flash memory circuit board assembly 7 are connected.

As shown in Fig. 3-1, Fig. 3-2 and Fig. 3-5, four ends of the water-resistant pusher 8 are inserted into the four opening holes 41 respectively, and the outer covering 13 is inserted into the groove 42. The fixing bar 14 is inserted into the space between the groove 130 of the outer covering 13 and the fixing hole 43 of the watch case 4, so that, one end of the USB connector assembly is fixed.

It should be noted that the cover 11 can be a separate component, instead of adhering to the watch band. If the USB connection cable 9 is relatively longer, the cover 11 can be fixed

somewhere on the watch band 6 to secure the USB connector 10, and the USB connector 10 can be taken out from the cover 11 when using.

Embodiment II

As shown in Fig. 4-1, the wristwatch of this embodiment includes a time movement 1, hands 2, a transparent lens 3, a watch case 4, a case back 5 and a flash memory circuit board assembly 7, the flash memory circuit board assembly 7 includes a central processing unit 71, a flash memory 72, a conductive spring sheet 73' and an indicator light 74. The watch band of the wristwatch of this embodiment is not shown in the figures. In the watch case 4, an opening hole 41, a groove 44 and a cover 45 are connected in turn and extend outwards. Said opening hole 41 is used for receiving the water-resistant pusher 8; said groove 44 is used for housing the USB connector 10. Since the USB connection cable is a four-core cable with four ends, the number of said opening hole 41 is four correspondingly, which can not be seen entirely in the sectional view. The locating position of the four opening holes 41 is the same as those in the embodiment I shown in Fig. 3-1.

As shown in Fig. 4-2, the wristwatch of this embodiment comprises a USB connector assembly, said USB connector assembly includes a water-resistant pusher 8, a USB connection cable 9 and a USB connector 10. One end of the USB connection cable 9 connects with the water-resistant pusher 8, while the other end connects with the USB connector 10. Said USB connection cable 9 is a four-core cable, so there are four ends of the water-resistant pushers 8 accordingly, which can not be seen entirely in the sectional view. Since the USB connection cable 9 is very short in length and the USB connector 10 is inserted inside the groove 44, an extra extension cable must be provided for connecting the USB connector 10 and the USB port of a computer. With the structure formed by the water-resistant pusher 8 and the water proof gasket 81, the internal elements of the wristwatch can still be sealed, and thus an excellent water proof performance can be achieved.

As shown in Fig. 4-1 and Fig. 4-2, the water-resistant pusher 8 is inserted in the opening hole 41, the USB connector 10 is inserted in the groove 44. The gap between the water-resistant pusher 8 and the opening hole 41 is filled with the water proof gasket 81; one end of the water-resistant pusher 8 connects with the spring sheet 73' of the flash memory circuit board assembly. The groove 44 is covered by the cover 45, which can protect the inside USB connector 10, especially from dust.

Furthermore, the connecting point of the flash memory circuit board assembly of the wristwatch of the present utility model can be either a spring bar or a conductive spring sheet, or other types. The wristwatch according to the present utility model can be either an analog watch or a digital watch, the time indicating component of the latter consists of an integrated circuit (IC) and a liquid crystal display screen (LCD).

Claims

What is claimed is:

1. A wristwatch comprises:
a timing indicating component;
an outer shell consists of a transparent lens (3), a watch case (4) and a case back (5);
said time indicating component is installed inside said outer shell;
characterized in that, said wristwatch further comprises a flash memory circuit board assembly (7) and a USB connector assembly;

said circuit board assembly (7) is installed inside said outer shell, and comprises at least a control IC (71), a flash memory IC (72) and circuit connecting points for connecting said USB connector assembly;

said USB connector assembly comprises water-resistant pusher (8), USB cable (9), USB connector (10), one end of said USB cable (9) is connected to said water-resistant pusher (8), the other end is connected to said USB connector (10);

opening holes (41) are provided on the side of said watch shell (4), said water-resistant pusher (8) is installed inside said opening holes (41), and is connected to the circuit connecting points of said flash memory circuit board assembly (7), said USB connector (10) is located outside said opening holes (41).

2. A wristwatch according to claim 1, characterized in that, said water-resistant pusher (8) is equipped with a water proof gasket (81), said water proof gasket (81) fills the gap between the water-resistant pusher (8) and the opening hole (41).

3. A wristwatch according to claim 1, characterized in that, the amount of said water-resistant pusher (8) is four, and that of said opening hole (41) is also four.

4. A wristwatch according to claim 1, characterized in that, said USB connector (8) is located outside said outer shell.

5. A wristwatch according to claim 1 or 4, characterized in that, said wristwatch further includes a watch band (6), said watch band (6) is covered by a cover (11), said cover (11) has a cavity (110), said USB connector (8) is installed into said cavity (110) of said cover (11).

6. A wristwatch according to claim 5, characterized in that, said cover (11) can be movable on said watch band (6).

7. A wristwatch according to claim 1, characterized in that, a groove (44) and a cover (45) for covering said groove (44) are provided in the watch shell (4) outside the opening hole (41), said USB connector (10) is located inside said groove (44) of said watch shell (4).

8. A wristwatch according to claim 1, characterized in that, said circuit connecting points of said flash memory circuit board assembly (7) is a spring bar (73), said water-resistant pusher (8) includes a spring bar (82), said spring bar (82) is connected with said spring bar (73).

9. A wristwatch according to claim 1, characterized in that, said circuit connecting points of said flash memory circuit board assembly (7) is a conductive spring sheet (73'), said water-resistant pusher (8) is connected with said conductive spring sheet (73').

10. A wristwatch according to claim 1, characterized in that, said time indicating component includes a time movement (1) and hands (2).

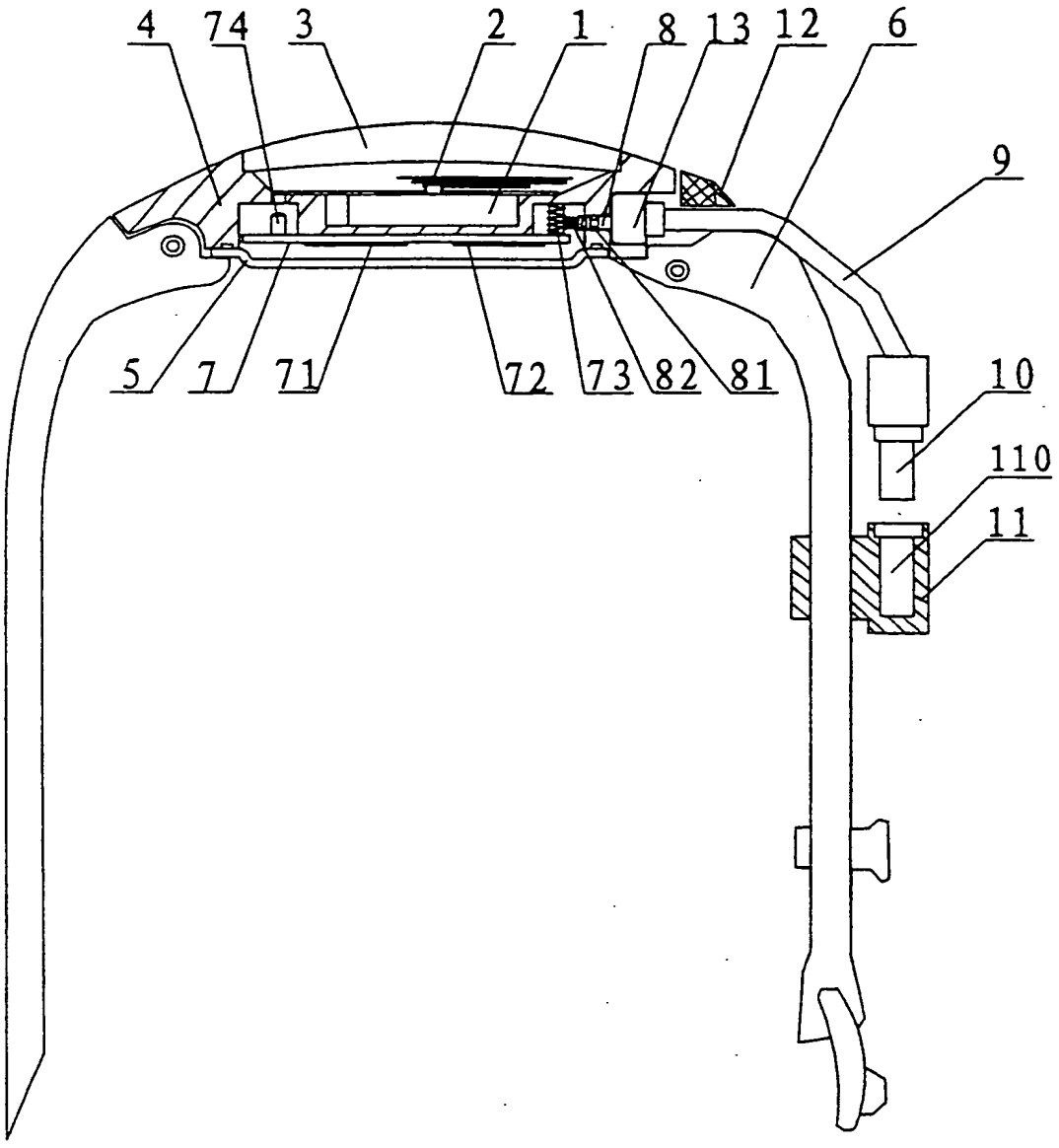

FIG. 1

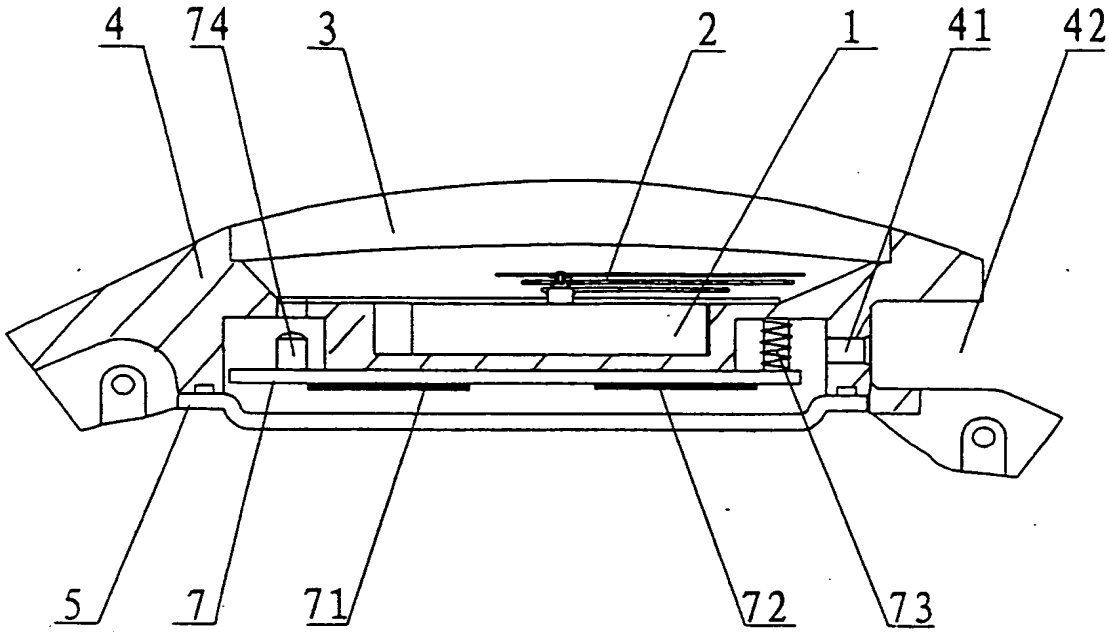

FIG. 2

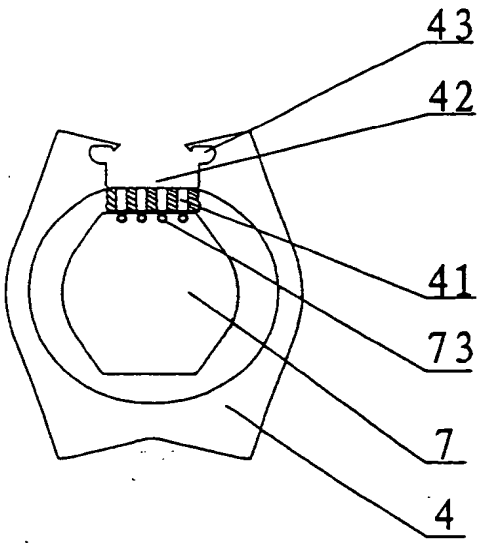

FIG. 3-1

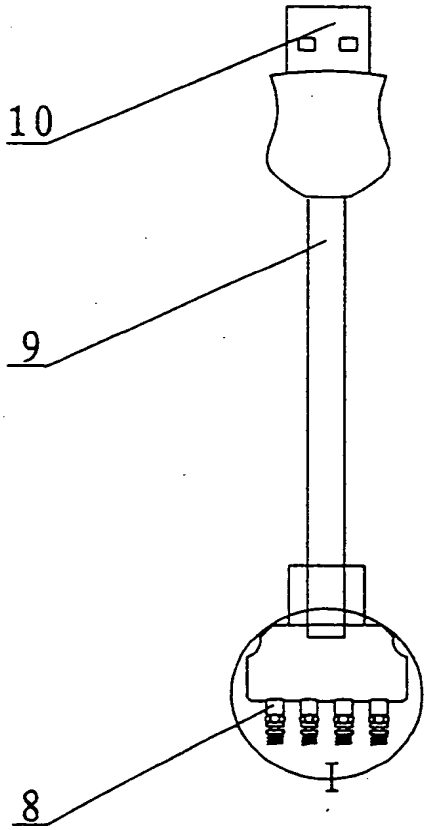

FIG. 3-2

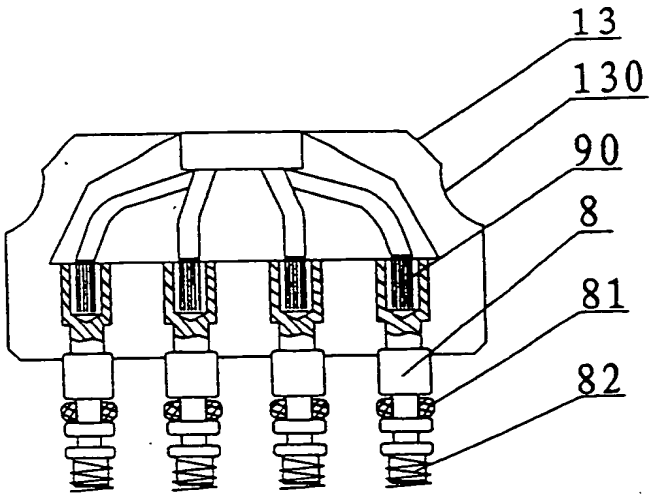

FIG. 3-3

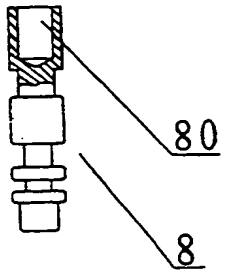

FIG. 3-4

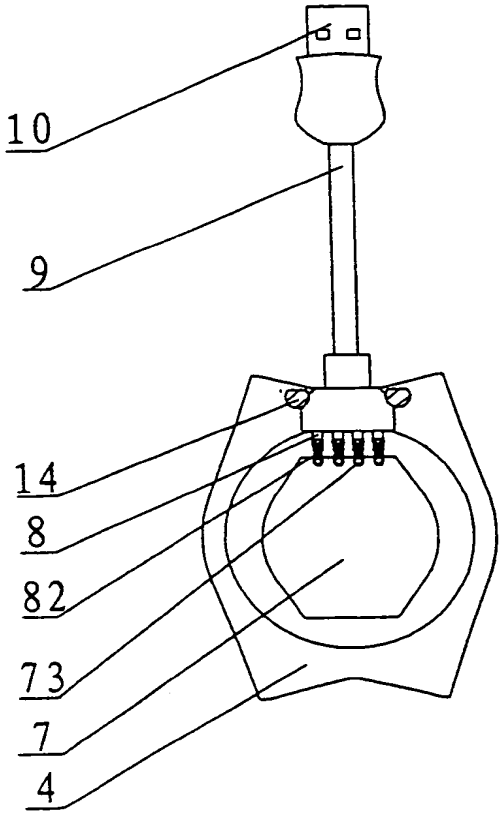

FIG. 3-5

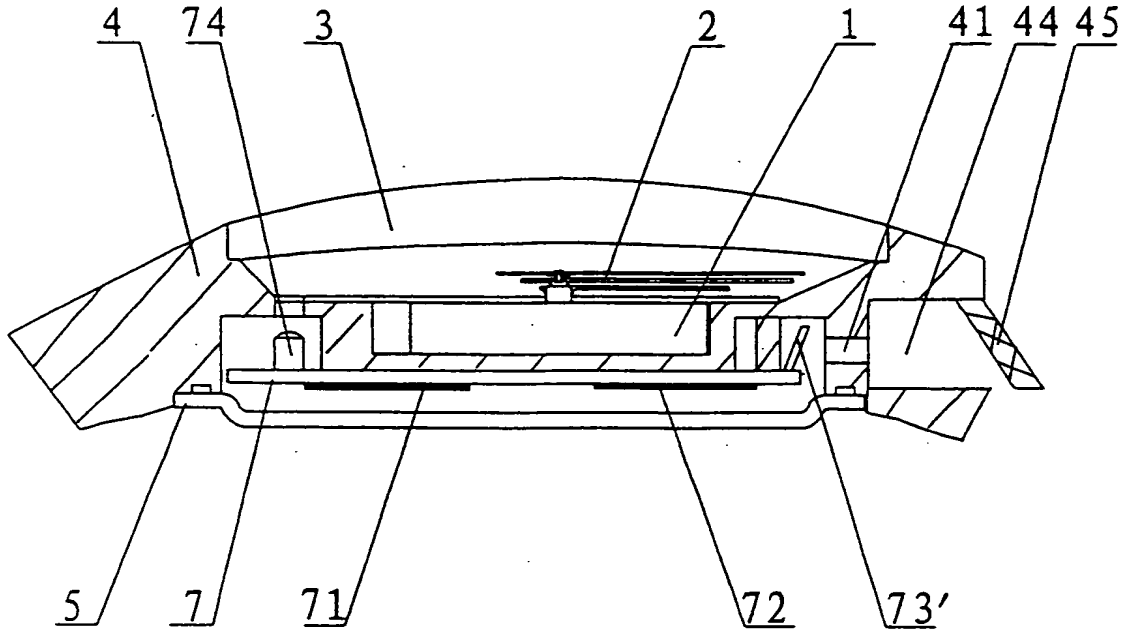

FIG. 4-1

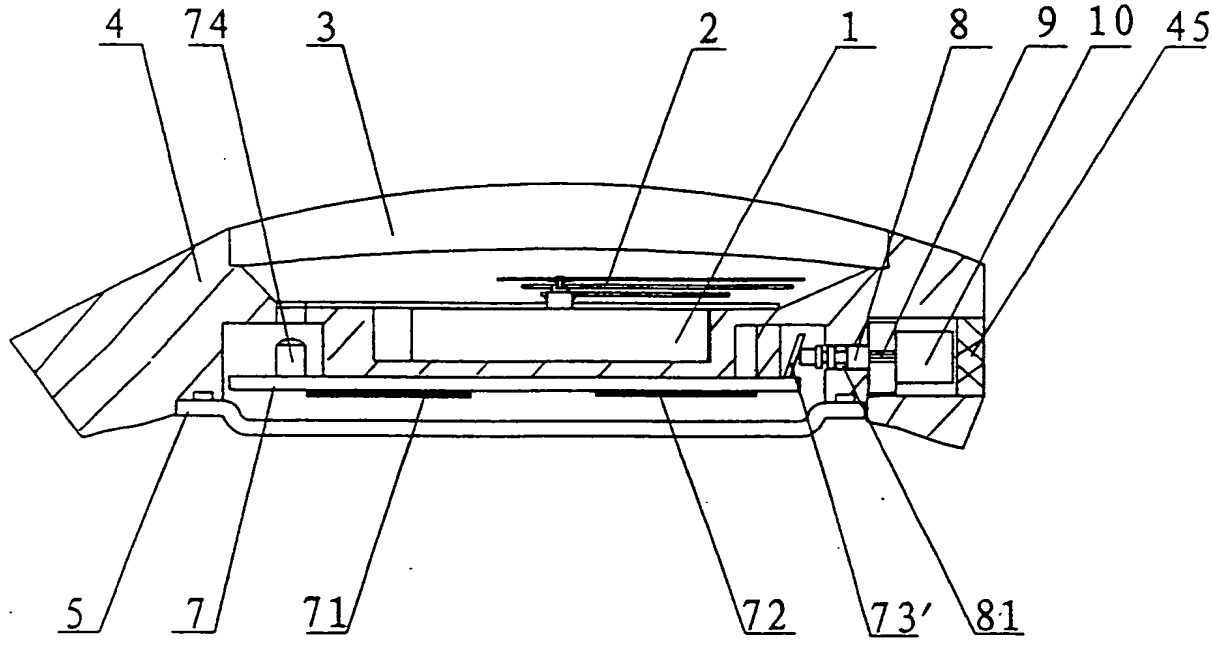

FIG. 4-2

证　　明

本证明之附件是向本局提交的下列专利申请副本

申　请　日：　2003 06 10

申　请　号：　03 2 47092.4

申请类别：　实用新型

发明创造名称：　手表

申　请　人：　珠海精准表业有限公司

发明人或设计人：陈笠

中华人民共和国
国家知识产权局局长　王景川

2003 年 7 月 16 日

权 利 要 求 书

1、一种手表，包括时间指示部件、由透明面板（3）、表壳（4）、后盖（5）组成的外壳，所述时间指示部件安装在所述外壳内，其特征在于：

安装有闪存盘电路板组件（7）及USB接插件；

所述闪存盘电路板组件(7)安装在所述外壳内，其至少具有控制芯片(71)、闪存芯片（72）及用来连接所述USB接插件的电路接点；

所述USB接插件具有防水按把（8）、USB电缆（9）、USB接口（10），所述USB电缆（9）一端连接所述防水按把（8），另一端连接所述USB接口（10）；

所述表壳（4）外侧设有通孔（41），所述防水按把（8）安装在所述通孔（41）里，并连接所述闪存盘电路板组件(7)的电路接点，所述USB接口（10）位于所述通孔（41）之外。

2. 根据权利要求1所述的手表，其特征在于：所述防水按把（8）具有防水圈（81），所述防水圈（81）填充在所述防水按把（8）与所述通孔（41）之间的缝隙里。

3. 根据权利要求1所述的手表，其特征在于：所述防水按把（8）共有四个，所述通孔（41）共有四个。

4. 根据权利要求1所述的手表，其特征在于：所述USB接口（8）位于所述外壳之外。

5. 根据权利要求1或4所述的手表，其特征在于：还具有表带（6），所述表带（6）套有罩（11），所述罩（11）设有腔室（110），所述USB接口（8）装在所述罩（11）腔室（110）里面。

6. 根据权利要求5所述的手表，其特征在于：所述罩（11）是一个可以在所述表带（6）上移动的罩。

7. 根据权利要求1所述的手表，其特征在于：所述表壳（4）在所述通孔（41）外的位置设有凹口（44）及用来盖住所述凹口（44）的罩（45），所述USB接口（10）位于所述表壳（4）凹口（44）里。

8. 根据权利要求1所述的手表，其特征在于：所述闪存盘电路板组件(7)电路接点是弹簧（73），所述防水按把（8）具有弹簧（82），所述弹簧（82）连接所述弹簧（73）。

9. 根据权利要求1所述的手表，其特征在于：所述闪存盘电路板组件(7)电路接点是导电弹片（73′），所述防水按把（8）连接所述导电弹片（73′）。

10. 根据权利要求1所述的手表，其特征在于：所述时间指示部件包括机芯(1)、指针(2)。

说　明　书

手表

技术领域

本实用新型涉及一种手表，特别是一种内置有闪存盘电路板组件的手表。

背景技术

近年来，USB 闪存盘产品的出现，为人们实现数据保存与传输提供了方便。USB 闪存盘内置有实现快速传输及储存电子数据的控制芯片（CPU）及闪存芯片（Flash Memory），该种产品数据读写及存储速度快、数据保存安全可靠，产品寿命亦长。但是，为了实现数据传输及存储，人们需要专门地携带一个闪存盘，携带、使用及保管起来很不方便，而且常要带一根长长的电缆延长线，也不方便。而手表作为一种计时产品，越来越受到人们的喜爱。然而，目前仍然没有一种既可计时、又可用作闪存盘，且具防水性能的手表。

实用新型的内容

本实用新型的目的在于，提供一种既能计时又能实现数据闪存，且具防水性能的手表。

本实用新型的目的是通过以下技术方案实现的：一种手表，包括时间指示部件、透明面板、表壳、后盖，透明面板、表壳与后盖形成手表的外壳，表壳设有通孔。该手表还包括闪存盘电路板组件及与其连接的 USB 接插件，闪存盘电路板组件与现有闪存盘类似，其设有控制芯片及闪存芯片，所述闪存盘电路板组件安装在手表外壳内。USB 接插件由防水按把、USB 电缆及 USB 接口构成，USB 电缆一端连接防水按把，另一端连接 USB 接口；防水按把安装在表壳所设通孔里，并连接闪存盘电路板组件的电路接点；USB 接口位于表壳所设通孔之外。

本实用新型的优点在于：它内置有闪存盘电路板组件，所以除了提供传统手表的计时等功能之外，还具有闪存盘功能，故人们不必专门携带移动硬盘、软盘或传统闪存盘，即可快速实现数据传输与存储。USB 接插件一端通过防水按把安装在手表表壳，故本实用新型防水性能极佳，保证内置的闪存盘电路板

组件及时间指示部件等零件完全密闭，数据不易受损和丢失。另外，在提供足够长的 USB 电缆的情况下，表带上可以套有一个罩，用于套住保护 USB 接口，同时 USB 接插件因为两端均被固定而附加在手表上，使用者不必携带延长线，即可随时随地实现数据闪存。

附图说明

图 1 是本实用新型第一个实施例的剖面结构示意图。

图 2 是本实用新型第一个实施例未装表带及 USB 接插件的剖面结构示意图。

图 3-1 是本实用新型第一个实施例未装表带及 USB 接插件的截面结构示意图。

图 3-2 是本实用新型第一个实施例 USB 接插件的结构示意图。

图 3-3 是图 3-2 所示 I 部的结构示意图。

图 3-4 是本实用新型第一个实施例防水按把的结构示意图。

图 3-5 是本实用新型第一个实施例的截面结构示意图。

图 4-1 是本实用新型第二个实施例未装 USB 接插件的剖面结构示意图。

图 4-2 是本实用新型第二个实施例的剖面结构示意图。

具体实施方式

现在结合附图及实施例对本实用新型作进一步的描述。

实施例一：

如图 1 所示，本实用新型手表是一种行针式手表，包括机芯 1、指针 2、透明面板 3、表壳 4、后盖 5、表带 6，机芯 1 与指针 2 构成手表的时间指示部件，透明面板 3、表壳 4 与后盖 5 构成手表的外壳；该手表还包括闪存盘电路板组件 7 和 USB 接插件，所述 USB 接插件包括防水按把 8、USB 电缆 9 和 USB 接口 10，USB 电缆 9 一端连接防水按把 8，另一端连接 USB 接口 10，防水按把 8 安装在表壳的通孔结构里，并伸进手表外壳内，连接闪存盘电路板组件 7。采用防水按把结构，是为了获得极佳的防水性能，市场上防水性能高的手表，其功能按键就是使用防水按把的。机芯 1、指针 2、闪存盘电路板组件 7 安装在手表外壳内，闪存盘电路板组件 7 安装在机芯 1 下方，它设有控制芯片（CPU）71、

闪存芯片（FLASH MEMORY）72、作为电路接点的弹簧 73、指示灯 74。闪存盘电路板组件 7 的工作原理与现有闪存盘工作原理相同。指示灯 74 用于在进行闪存操作时，提供指示给使用者，故相应地，指示灯 74 正上方的手表结构设计为透明。防水按把 8 带有防水圈 81、弹簧 82，防水圈 81 紧密填充在防水按把 8 与表壳通孔结构的缝隙里，弹簧 82 连接闪存盘电路板组件 7 的弹簧 73。表带 6 上套有罩 11，用来套入 USB 接口 10，罩 11 设有腔室 110，可套入 USB 接口 10，罩 11 有防尘作用，又可以防止水溅湿 USB 接口 10，且起固定 USB 接插件的作用。手表使用者平时把 USB 接口 10 藏在所述罩 11 的腔室 110 里，在使用闪存功能时，将罩 11 移开，然后将 USB 接口 10 接插电脑相应接口即可。因为手表所具 USB 接口 10 可以直接拿来插入电脑接口，所以使用者无需专门携带一根长长的延长线即可随时随地实现闪存。另外，有一固定块 12，用来罩住处于表壳与表带接合位置的 USB 电缆 9，使之得以固定。

图 2 是本实用新型没有安装表带及 USB 接插件的剖面结构示意图。表壳朝外方向连续设有通孔 41、凹位 42，通孔 41 用来安装防水按把 8。

如图 3-1 所示，闪存盘电路板组件 7 设有作电路接点的弹簧 73，表壳 4 朝外方向连续设有通孔 41 及凹位 42，共有四个通孔 41，凹位 42 左右每侧设有一个梢孔 43，该梢孔 43 用来栓入下文所述固定梢 14。

如图 3-2 所示，USB 接插件包括防水按把 8、USB 电缆 9、USB 接口 10。

因为 USB 电缆 9 为四芯线，其线头 90 则有四个，所以，如图 3-3 所示，共有四个防水按把 8。防水按把 8 一端连接 USB 电缆 9 的线头 90，另一端设有防水圈 81、弹簧 82。防水按把 8 与 USB 电缆 9 的线头 90 的连接位置包裹有外套 13，目的是结构严密，保护外套 13 内互相连接的线头 90 及防水按把 8。外套 13 左右每侧设有凹口 130，其与表壳内的梢孔 43 形成一个用来栓入下文所述固定梢 14 的严密结构。当防水按把 8 装进通孔 41 里时，防水圈 81 严密地填充在防水按把 8 与通孔 41 之间的缝隙里，保证结构密闭，防止水或水汽进入外壳内。

如图 3-3、图 3-4 所示，防水按把 8 与线头 90 连接的一端设有孔 80，USB 电缆 9 的线头 90 装在孔 80 里，用焊锡等导电材料将线头 90 固定在所述孔 80 里，因而线头 90 与防水按把 8 连接导电。

如图 3-5 所述，防水按把 8 所设弹簧 82 用于连接闪存盘电路板组件 7 所设

弹簧 73，从而使得 USB 接插件与闪存盘电路板组件 7 连接。

结合图 3-1、图 3-2 与图 3-5，四个防水按把 8 分别安装在四个通孔 41 里，外套 13 安装在凹位 42 里。外套 13 的凹口 130 与表壳 4 的梢孔 43 之间栓入固定梢 14，固定了 USB 接插件的一端。

需要注意的是，罩 11 可以做成一个独立部件，而不必套在表带上。如果提供较长的 USB 电缆 9 时，罩 11 可以做成固定在表带 6 的某个位置上，使用时将 USB 接口 10 从罩 11 里取出。

实施例二：

如图 4-1 所示，本实用新型包括机芯 1、指针 2、透明面板 3、表壳 4、后盖 5、闪存盘电路板组件 7，闪存盘电路板组件包括控制芯片 71、闪存芯片 72、作为电路接点的导电弹片 73′、指示灯 74。因为手表一般都有表带，故本实施例不作描述。表壳 4 外侧依次设有通孔 41、凹口 44 及罩 45。通孔 41 用于安装下文所述防水按把 8，凹口 44 用于安装下文所述 USB 接口 10。因为 USB 电缆为四芯线，有四个线头，故通孔 41 也有四个，只是在剖面图中不能看见，四个通孔 41 的分布位置与图 3-1 所示第一个实施例中的相同。

如图 4-2 所示，本实用新型安装有 USB 接插件，该 USB 接插件包括防水按把 8、USB 电缆 9、USB 接口 10，USB 电缆 9 一端连接防水按把 8，另一端连接 USB 接口 10。USB 电缆 9 是四芯线，故与其连接的防水按把 8 也有四个，只是在剖面图不能看见。因为 USB 电缆 9 很短，而 USB 接口 10 安装在凹口 44 里，故使用时需要接驳有关延长线。由于提供了防水按把 8 及防水圈 81 结构，手表内部元器件仍然密闭，防水性能极佳。

结合图 4-1、图 4-2，在表壳 4 外侧通孔 41 位置安装有防水按把 8，凹口 44 位置安装有 USB 接口 10。防水按把 8 与通孔 41 之间的缝隙里填充了防水圈 81，防水按把 8 一端连接闪存盘电路板组件 7 的弹片 73′。罩 45 盖住凹口 44，起保护里面 USB 接口 10 的作用，特别是起防尘作用。

另外，本实用新型的闪存盘电路板组件的电路接点可以是弹簧或者导电弹片，还可以是其它形式的接点。本实用新型手表可以是指针式手表，也可以是数字式手表，即时间指示部件采用集成电路芯片（IC）及液晶显示板（LCD）。

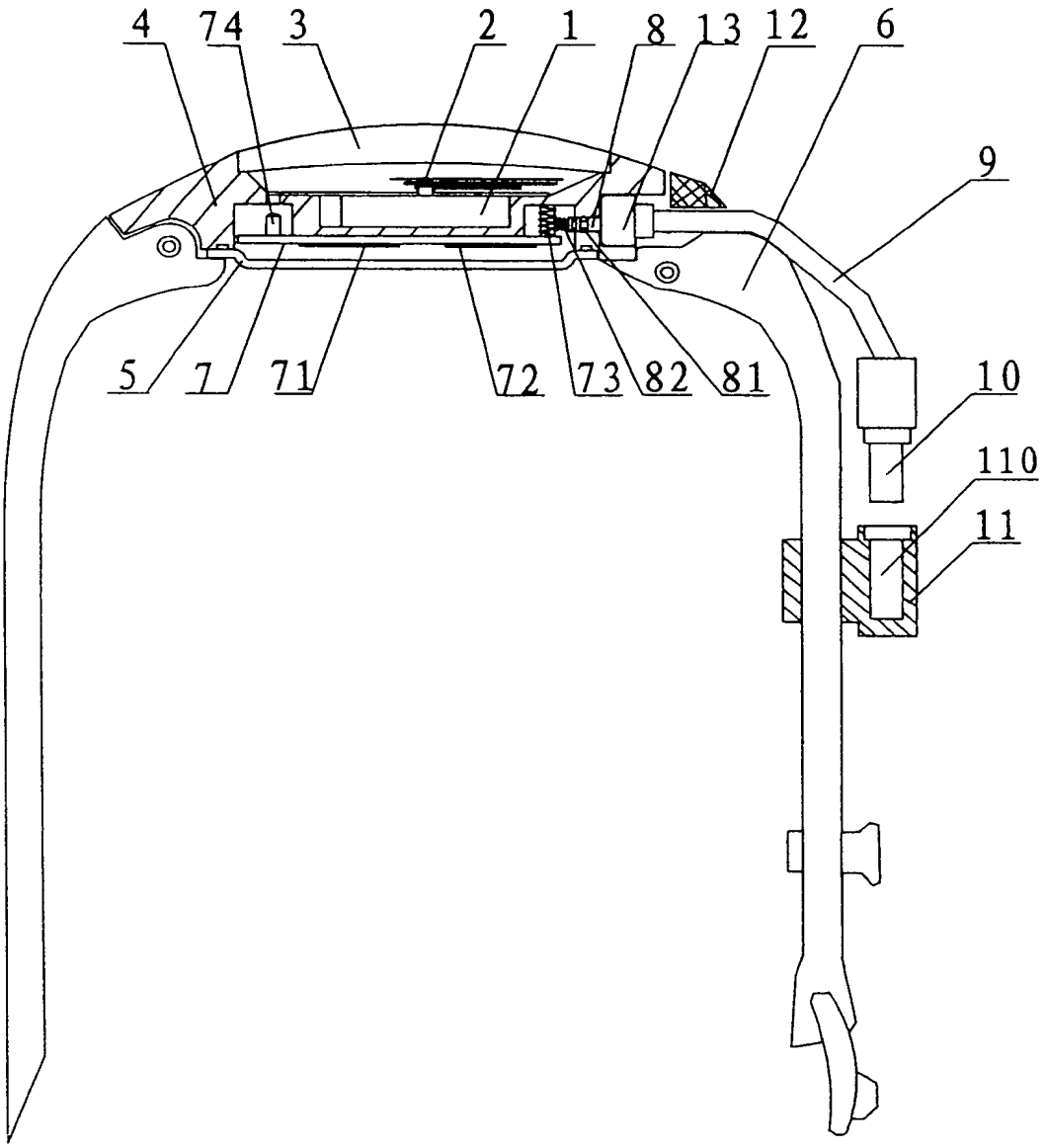

图1

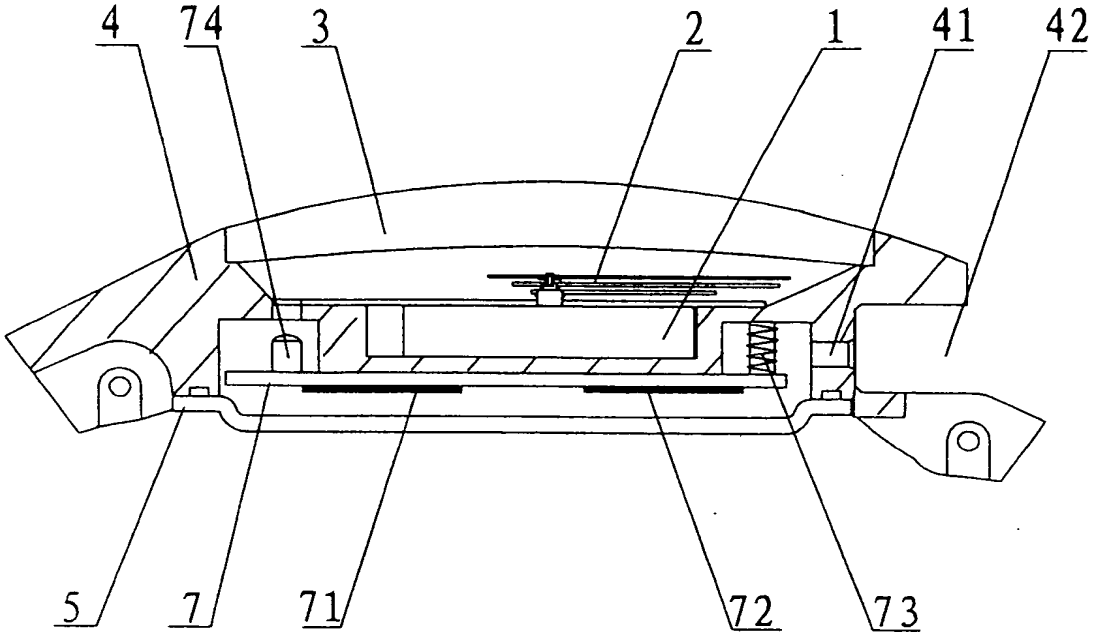

图2

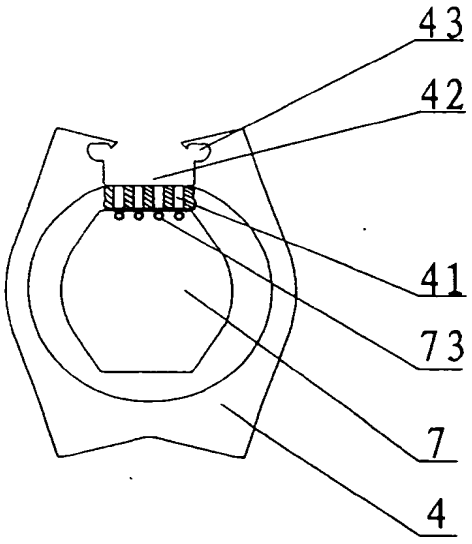

图3-1

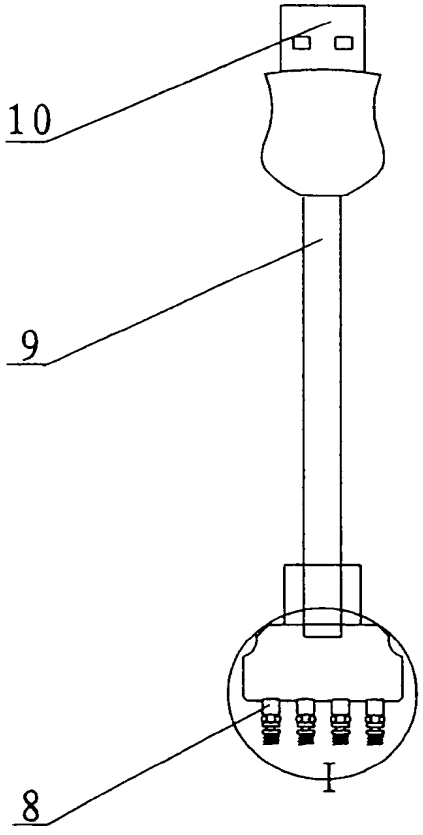

图3-2

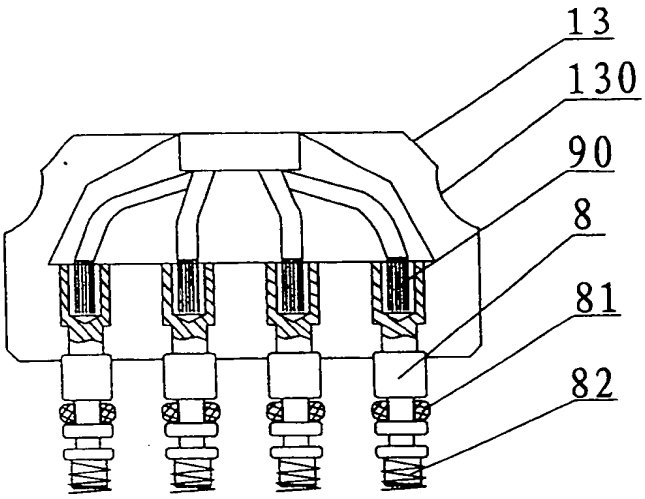

图3-3

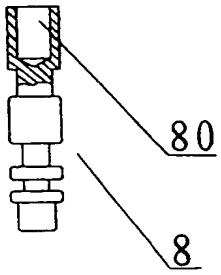

图3-4

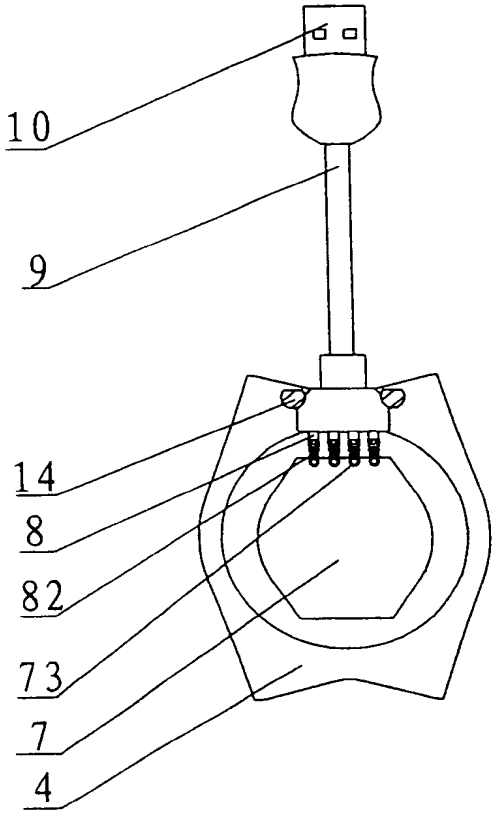

图3-5

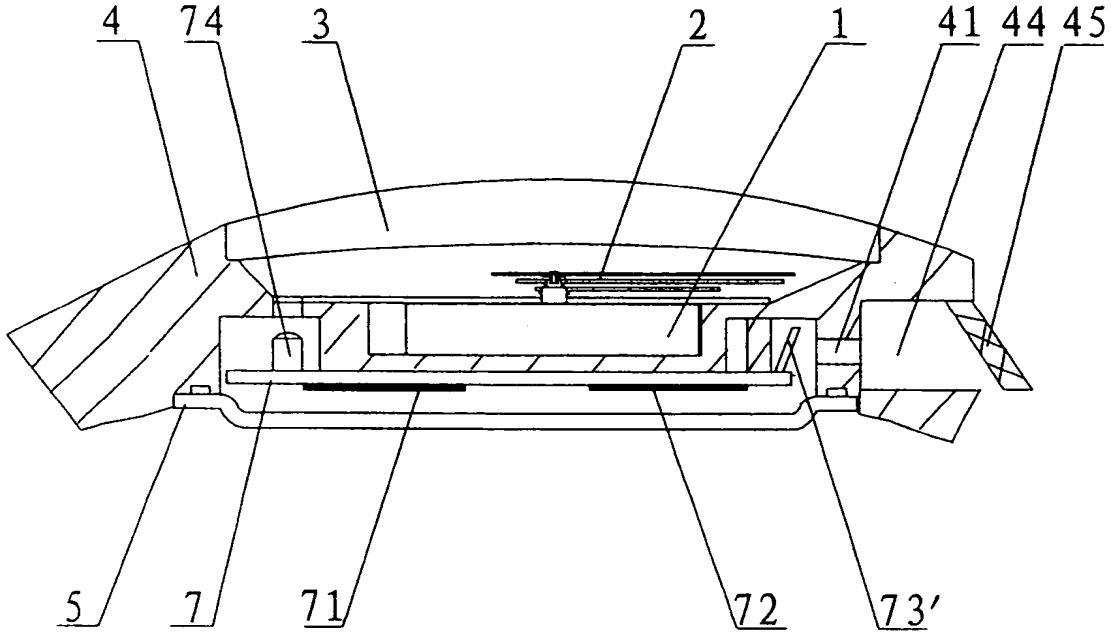

图4-1

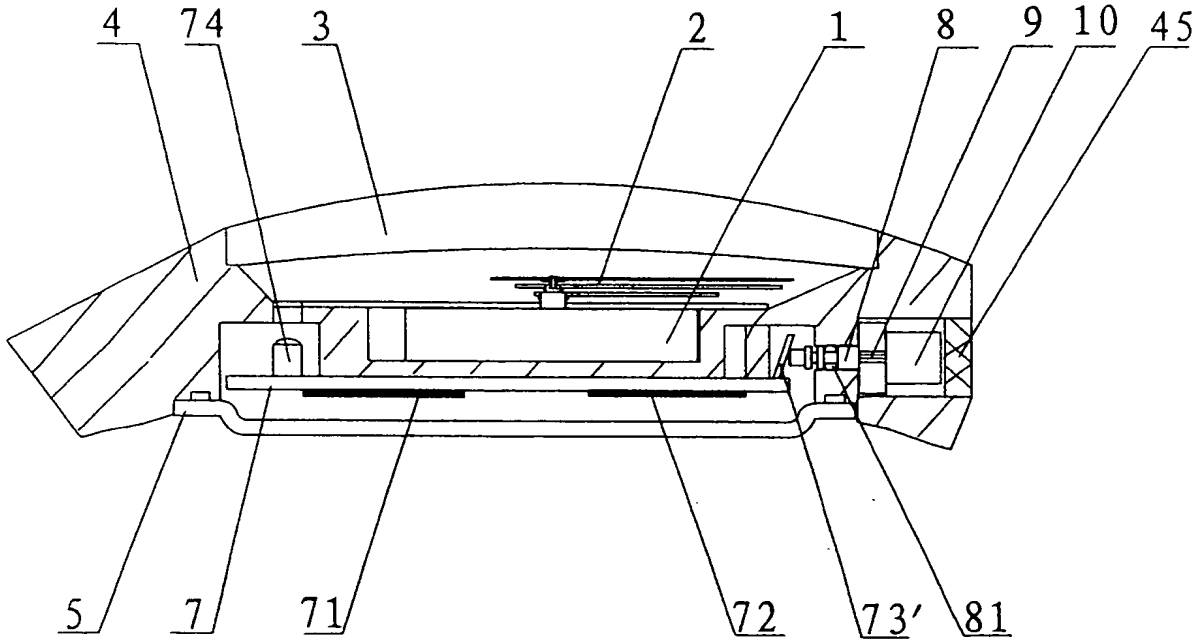

图4-2